BRUHAT BANGALORE MAHANAGARA PALIKE

MEASUREMENT SHEET

RA 1ST AND FINAL BILL

Name of work: Development of Burial Ground at Kodigehalli Village in Ward No. 08.

Estimated Cost : Rs. 50.00 Lakhs

Job Code : 008-19-000009

Head of Account : P-0190 Mayor Grant

Name of Agency: Sri A. Hemadri Reddy

Work order No: BBMP/EE/BTP/WO/70/2019-20 Date: 31.07.2019.

Measurements Recarded on :

Sl No.	Description	No.	L	B1	B2	AV. B	D	Qty	Rate / Unit	Amount
1	Earthwork excavation for foundation of buildings, water supply, sanitary lines and electrical conduits either in pits or in trenches 1.5m and above in width, in ordinary soil not exceeding 1.5 m. in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50 m. after breaking of clods complete as per specifications								Cum	
	Qty as per Premeasurement Recorded vide E-MB Page No. 1 is							**229.74**	309.19	**71033.00**
2	Providing and laying in position plain cement concrete of mix 1:3:6 with OPC cement @ 220kgs, with 40mm and down size graded granite metal coarse aggregates @0.892cum and fine aggregates @ 0.465cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation including cost of all materials, labour, HOM of machinery, curing complete as per specifications.								Cum	
	Qty as per Premeasurement Recorded vide E-MB Page No. 2 is							**38.29**	5490.03	**210213.00**
3	Providing and constructing granite / trap / basalt size stone masonry in foundation with cement mortar 1:6, stone hammerd dressed in courses not less than 20 cms high, bond stones at two m. apart in each course including cost of materials, labour, curing complete as per specifications.								Cum	
	Qty as per Premeasurement Recorded vide E-MB Page No. 2 is							**173.97**	4752.72	**826831.00**
4	Providing and constructing granite / trap / basalt size stone masonry in basement with cement mortar 1:6, edges of stones chistle dressed in courses not less than 15 cms high, bond stones at two m. apart in each course including cost of materials, labour, curing complete as per specifications								Cum	
	Burial Ground Compound Wall									
	East Side	1	30.00			0.45	0.45	6.08		
		1	30.00			0.45	0.45	6.08		
		1	29.00			0.45	0.60	7.83		
	West Side	1	30.00			0.45	0.45	6.08		
		1	30.00			0.45	0.45	6.08		
		1	29.30			0.45	0.45	5.93		
	North Side	1	16.00			0.45	0.45	3.24		
	Deduction for Pillars									
	East Side	22	0.40			0.23	0.45	-0.91		
	West Side	23	0.40			0.23	0.60	-1.27		
	North Side	5	0.40			0.23	0.45	-0.21		
							Total Qty =	**38.92**		
							Qty Limited to =	**38.29**	5669.97	**217103.00**
5	Providing and removing centering, shuttering, strutting, propping etc., for columns, pillars, post and struts, square / rectangular / polygon in plan including cost of all materials, labour complete as per specifications								Sqm	
	Qty as per Premeasurement Recorded vide E-MB Page No. 3 is							**287.83**	537.19	**154619.00**

Assistant Engineer

Assistant Executive Engineer

Assistant Executive Engineer
Kodigehalli Sub Division,
Yelahanka Zone, B.B.M.P.,
Bangalore.

Sl No.	Description	No.	L	B1	B2	AV. B	D	Qty	Rate / Unit	Amount
6	Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for vertical surface such as walls at any thickness, including attached pilasters, buttresses, plinth cills and string courses cost of all materials, labour complete as per specifications								Sqm	
	Qty as per Premeasurement Recorded vide E-MB Page No. 3 is							**120.60**	320.20	**38616.00**
7	Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for sides and soffits of beams, beam haunchings, cantilever girders, bressumers and lintels not exceeding 1m in depth including cost of all materials, labour complete as per specifications								Sqm	
	Qty as per Premeasurement Recorded vide E-MB Page No. 4 is							**60.30**	301.95	**18208.00**
8	Providing and laying in position reinforced cement concrete of Design mix M20 with OPC cement @ 320kgs, with 20mm and down size graded granite metal coarse aggregates @0.69cum and fine aggregtes @ 0.460 cum, with super plasticisers @ 3 liters confirming to is 9103-1999 reafirmed-2008, machine mixed, concrete laid in layers not exceeding 15 cms thick, vibrated for all works in foundation for footings, pedastals, retaining walls, return walls, walls (any thickness) including attached pilasters, columnspillars, posts, struts, buttresses, bed blocks, anchor blocks & plinths etc., including cost of all materials, labour, HOM of machinery, curing, complete but excluding cost of reinforcement as per specifications								Cum	
	Burial Ground Compound Wall									
	Footing									
	East Side	22	0.90			0.90	0.45	8.02		
	West Side	23	0.90			0.90	0.45	8.38		
	North Side	5	0.90			0.90	0.45	1.82		
	Pillars									
	East Side	22	0.30			0.40	3.50	9.24		
	West Side	23	0.30			0.40	3.50	9.66		
	North Side	5	0.30			0.40	3.50	2.10		
	Plinth Beam									
	East Side	1	30.00			0.40	0.30	3.60		
		1	30.00			0.30	0.30	2.70		
		1	29.00			0.30	0.30	2.61		
	West Side	1	30.00			0.30	0.30	2.70		
		1	30.00			0.30	0.30	2.70		
		1	29.30			0.30	0.30	2.64		
	North Side	1	16.00			0.30	0.30	1.44		
							Total Qty =	**57.61**		
							Qty Limited to =	**57.48**	6387.13	**367132.00**
9	Providing and laying in position reinforced cement concrete of design mix M20 with OPC cement @ 320kgs, with 20mm and down size graded granite metal coarse aggregates @0.69cum and fine aggregates @ 0.46cum, with superplastisiser @3lts confirming to IS9103-1999 Reaffirmed-2008, machine mixed, concrete laid in layers not exceeding 15 cms thick, vibrated for all works in ground floor level for roof slabs, staircase, lintles, and beams retaining walls, return walls, walls (any thickness) including attached plasters, columns, pillars, posts, struts, buttresses, string or lacing courses, parapets, coping, bed blocks, anchor blocks, plain window cills, fillets etc., including cost of all materials, labour, HOM of machinery, curing, complete but excluding cost of reinforcement as per specifications.								Cum	
	Burial Ground Compound Wall									
	Plinth Beam									
	East Side	1	30.00			0.20	0.15	0.90		
		1	30.00			0.20	0.15	0.90		
		1	29.00			0.20	0.15	0.87		
	West Side	1	30.00			0.20	0.15	0.90		
		1	30.00			0.20	0.15	0.90		
		1	29.30			0.20	0.20	1.17		
	North Side	1	16.00			0.20	0.15	0.48		
							Total Qty =	**6.12**		
							Qty Limited to =	**6.03**	6092.91	**36740.00**

Assistant Executive Engineer
Kodigehalli Sub Division,
Yelahanka Zone, B.B.M.P.,
Bangalore.

Assistant Engineer

Assistant Executive Engineer
Kodigehalli Sub Division,
Yelahanka Zone, B.B.M.P.,
Bangalore.

Sl No.	Description	No.	L	B1	B2	AV. B	D	Qty	Rate / Unit	Amount
10	Providing T.M.T steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete as per specifications. Specification No. KBS 4.6.3 - TMT bars Fe 500								Tonne	
	Qty as per Premeasurement Recorded vide E-MB Page No. 4 is							8.58	73385.94	629651.00
11	Filling available excavated earth (excluding rock) in sides of foundations upto plinth in layers not exceeding 20cms, in depth, compacting each deposited layers by ramming after watering with lead upto 50m, and lift upto 1.5m, including cost of all labour complete as per specifications,								Cum	
	Refilling over Pillars									
	East Side	22	0.75			0.75	0.35	4.33		
	West Side	23	0.75			0.75	0.35	4.53		
	North Side	5	0.75			0.75	0.35	0.98		
							Total Qty =	9.84		
							Qty Limited to =	9.80	131.33	1287.00
12	Providing and constructing load bearing wall with cement concrete cavities blocks (hollow blocks) of size 400x200x200 mm Grade B having a minimum face shell thickness of 30mm and web thickness of 25mm with block density between 1100 kg/m3 and 1500 kg/m3 having a minimum average compressive strength of 5.00 N/mm2 confirming to IS 2185 (Part) : 2005 and constructed with CM 1:4 , as per IS 2572:2005 including cost of all materials, labour charegs, scaffolding, curing								Sqm	
	Compound Wall									
	East Side	1	30.00				2.10	63.00		
		1	30.00				2.10	63.00		
		1	29.00				2.20	63.80		
	West Side	1	30.00				2.10	63.00		
		1	30.00				2.10	63.00		
		1	29.30				2.10	61.53		
	North Side	1	16.00				2.00	32.00		
	Deduction for Pillars									
	East Side	22	0.40				2.10	-18.48		
	West Side	23	0.40				2.10	-19.32		
	North Side	5	0.40				2.00	-4.00		
							Total Qty =	367.53		
							Qty Limited to =	322.27	994.80	320594.00
13	Providing 20mm thick cement plaster in single coat with cement mortar 1:3, to stone masonry & concrete surface including rounding off corners wherever required smooth rendering, : Providing and removing scaffolding, including cost of materials, labour, curing complete as per specifications								Sqm	
	Compound Wall									
	East Side	2	30.00				2.30	138.00		
		2	30.00				2.30	138.00		
		2	29.00				2.40	139.20		
	West Side	2	30.00				2.30	138.00		
		2	30.00				2.30	138.00		
		2	29.30				2.30	134.78		
	North Side	2	16.00				2.20	70.40		
	East Side	22	0.40				2.30	20.24		
	West Side	23	0.40				2.30	21.16		
	North Side	5	0.40				2.20	4.40		
							Total Qty =	942.18		
							Qty Limited to =	942.02	262.66	247431.00
14	Providing and finishing external walls in two coats with waterproof cement paint of approved brand and shade to give an even shade after throughly brooming the surface to remove all dirt and loose powdered material, free from mortar drops and other foreign matter cost of materials, labour, complete as per specifications. - with primer.								Sqm	
	Compound Wall									
	East Side	2	30.00				2.30	138.00		
		2	30.00				2.30	138.00		
		2	29.00				2.40	139.20		
	West Side	2	30.00				2.30	138.00		

Assistant Executive Engineer, Kodigehalli Sub Division, Yelahanka Zone, B.B.M.P., Bangalore.

Assistant Executive Engineer, Kodigehalli Sub Division, Yelahanka Zone, B.B.M.P., Bangalore.

Assistant Executive Engineer, Kodigehalli Sub Division, Yelahanka Zone, B.B.M.P., Bangalore.

Assistant Engineer

Assistant Executive Engineer

Assistant Executive Engineer, Kodigehalli Sub Division, Yelahanka Zone, B.B.M.P., Bangalore.

Sl No.	Description	No.	L	B1	B2	AV. B	D	Qty	Rate / Unit	Amount
		2	30.00				2.30	138.00		
		2	29.30				2.30	134.78		
	North Side	2	16.00				2.20	70.40		
	East Side	22	0.40				2.30	20.24		
	West Side	23	0.40				2.30	21.16		
	North Side	5	0.40				2.20	4.40		
							Total Qty =	942.18		
							Qty Limited to =	942.02	105.47	99355.00
15	Providing and laying in position **plain cement concrete of mix 1:2:4** with cement @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.69 cum and fine aggregtes @ 0.459cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, **in foundation, plinth and cills**, ncluding cost of all materials, labour, HOM of machinery, curing complete as per specifications.								Cum	
	Compound Wall									
	East Side	1	30.00			0.20	0.10	0.60		
		1	30.00			0.20	0.10	0.60		
		1	29.00			0.20	0.10	0.58		
	West Side	1	30.00			0.20	0.10	0.60		
		1	30.00			0.20	0.10	0.60		
		1	29.30			0.20	0.10	0.59		
	North Side	1	16.00			0.20	0.15	0.48		
							Total Qty =	4.05		
							Total Qty Limited to =	4.02	5606.89	22540.00
16	Providing and fixing M.S. Gate as per Chief Architect Drawing, using 50mm x 50mm 14 guage M.S. hollow pipe frame work bent to ornamental shape as shown in the drawing and 35mm x 6mm and 16 x 16mm Square rods for verticals alternatively spaced at 4cms c/c in two halves and 40mmx6mm M.S. flats for horizontal member and at the top cast iron spikes are provided at alternate vertical members asshown in the drawing etc., complete. All the steel surface should be thoroughly cleaned free of rust and painted with anti corrosive paint (shop paint) etc., complete. The work includes cost of all materials, labour charges for all items of work, hire charges for welding, cutting and grinding equipment, and electricity charges, with lead and lift, loading and unloading charges, etc., complete as per specifiocation.								Sqm	
	Compound Wall Enterance Gate									
	East Side	1	4.50				3.00	13.50		
							Total Qty =	13.50		
							Total Qty Limited to =	13.50	3114.70	42048.00
17	Removing and resetting of footpath slab etc complete as per specifications.								Sqm	
	Qty as per Premeasurement Recorded vide E-MB Page No. 5 is							50.40	199.94	10077.00
18	Earthwork excavation by manual means in ordinary soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5 m, excavated surface leveled and sides neatly dressed, the disposed earth to be leveled neatly after breaking of clods complete as per specifications.								Cum	
	Qty as per Premeasurement Recorded vide E-MB Page No. 5 is							95.76	229.76	22002.00
19	Providing and laying in position plain cement concrete of mix 1:3:6 with OPC cement @ 220kgs, with 40mm and down size graded granite metal coarse aggregates @0.892cum and fine aggregates @ 0.465cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation including cost of all materials, labour, HOM of machinery, curing complete as per specifications.								Cum	
	Qty as per Premeasurement Recorded vide E-MB Page No. 5 is							25.12	5371.11	134922.00
20	Providing and constructing granite / trap / basalt size stone masonry in foundation with cement mortar 1:6, stone hammerd dressed in courses not less than 20 cms high, bond stones at two m. apart in each course including cost of materials, labour, curing complete as per specifications.								Cum	
	Wall	1	30.00			0.45	0.45	6.08		
		1	30.00			0.45	0.45	6.08		
		1	30.00			0.45	0.45	6.08		
		1	30.00			0.45	0.45	6.08		

24.32

Assistant Engineer

Assistant Executive Engineer

Assistant Executive Engineer
Kodigehalli Sub Division,
Yelahanka Zone, B.B.M.P.,
Bangalore.

Sl No.	Description	No.	L	B1	B2	AV. B	D	Qty	Rate / Unit	Amount
		1	14.00			0.45	0.45	2.84		
							Total Qty =	27.14		
							Qty Limited to =	27.14	4752.72	128989.00
21	Providing and constructing load bearing wall with cement concrete cavities blocks (hollow blocks) of size 400x150x200 mm Grade B having a minimum face shell thickness of 30mm and web thickness of 25mm with block density between 1100 kg/m3 and 1500 kg/m3 having a minimum average compressive strength of 5.00 N/mm2 confirming to IS 2185 (Part) : 2005 and constructed with CM 1:4 , as per IS 2572:2005 including cost of all materials, labour charegs, scaffolding, curing complete as per specifications								Sqm	
	Wall	1	30.00				0.40	12.00		
		1	30.00				0.40	12.00		
		1	30.00				0.40	12.00		
		1	30.00				0.40	12.00		
		1	14.00				0.40	5.60		
							Total Qty =	53.60		
							Qty Limited to =	53.60	955.50	51215.00
22	Providing flush pointing to square rubble, course or uncoursed stone masonry with cement mortar 1:3, 20mm deep, after raking joints to depth of 20mm nicely lining, including cost of materials, labour, curing complete as per specifications								Sqm	
	Wall	1	30.00				0.80	24.00		
		1	30.00				0.80	24.00		
		1	30.00				0.80	24.00		
		1	30.00				0.80	24.00		
		1	14.00				0.80	11.20		
							Total Qty =	107.20		
							Qty Limited to =	107.20	145.80	15630.00
23	Providing and laying in position **plain cement concrete of mix 1:2:4** with cement @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.69 cum and fine aggregtes @ 0.459cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, **in foundation, plinth and cills**, ncluding cost of all materials, labour, HOM of machinery, curing complete as per specifications.								Cum	
	Cross Roads	1	30.00			0.60	0.10	1.80		
		1	30.00			0.60	0.10	1.80		
		1	30.00			0.60	0.10	1.80		
		1	30.00			0.60	0.10	1.80		
		1	14.00			0.60	0.10	0.84		
	Vent Concrete & Bed correction	1	30.00			0.15	0.10	0.45		
		1	30.00			0.15	0.10	0.45		
		1	30.00			0.15	0.10	0.45		
		1	30.00			0.15	0.10	0.45		
		1	14.00			0.15	0.10	0.21		
							Total Qty =	10.05		
							Qty Limited to =	10.05	5606.89	56349.00
24	Providing and fixing RCC precast covering slab of 100 mm for drain in cement concrete , M20 using graded granite jelly 20 mm and down size with steel reinforcement including form work lift charges, curing and concrete finishied surfaces of both side etc complete as per specifications.								Sqm	
	Cross Roads Covering Slab	2	30.00			0.90		54.00		
		2	30.00			0.90		54.00		
		1	14.00			0.90		12.60		
		2	30.00			0.90		54.00		
		1	30.00			0.90		27.00		
		1	30.00			0.90		27.00		
		1	27.00			0.90		24.30		
							Total Qty =	252.90		
							Qty Limited to =	251.40	2010.75	505503.00
	Total								**Total**	**4228088.00**
	GST @ 12%									**507371.00**
	Grand Total									**4735459.00**

Rupees Forty Two Lakh(s) Twenty Eight Thousand Eighty Eight Only

Assistant Engineer

Assistant Executive Engineer

Assistant Executive Engineer, Kodigehalli Sub Division, Yelahanka Zone, B.B.M.P., Bangalore.